

Applicant's patent is based on the requirement for trenches to be in a mesh pattern so that not only is cracking of the IMD far less likely to occur but even if a crack is initiated it is essentially confined to a single cell. This confinement is achieved by arranging the trenches in a mesh pattern so that a propagating crack will intercept a trench, which stops the propagation, before the crack can propagate out of the cell. This provides for a significant reliability improvement. However, as described in the specifications, it was found by Applicants that void formation occurs to an intolerable degree for completely crossing trenches. The limitation of the invention that the trench mesh patterns of the preferred embodiments do not have completely crossing trenches is to prevent void formation.

In summary, all claims are now believed to be in allowable condition and reconsideration of the rejections and allowance is therefore respectfully requested.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned

"VERSION WITH MARKINGS TO SHOW CHANGES MADE"

It is requested that should there be any problems with this Amendment, please call the undersigned attorney at (845) 452-5863.

Respectfully submitted,



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"VERSION WITH MARKINGS TO SHOW CHANGES MADE"

In the claims:

1. A method of forming a bonding pad that is immune to IMD cracking, comprising:
 - providing a partially processed semiconductor wafer having all metal levels completed;
 - forming a blanket dielectric layer over the uppermost metal level;
 - patterning and etching said dielectric layer to form horizontal and vertical arrays of trenches passing through said dielectric layer such that none of said horizontal trenches completely intersects any of said vertical trenches and separating said dielectric layer into cells such that [any straight line having points on more than two cells must intersect at least one trench] cracks will not propagate much beyond a cell before being stopped by a trench in order to limit the propagation of any cracks that may form;
 - filling said trenches with a conducting material; performing CMP;
 - depositing bonding metal patterns;
 - bonding wires onto said bonding metal patterns;
 - forming a passivation layer.